Economic Classification: Industries and Commodities

The Standard Industrial Classification (SIC) system is the key to most financial and institutional data, since it provides the basic framework by which establishment-based data are collected and tabulated. The SIC affects data collection and analysis at all levels of government and in many private corporations.

As noted last year, revisions to the SIC are needed.[7] Since that time, the Economic Classification Policy Committee convened by the Office of Management and Budget has proposed a trilateral effort to replace completely the SIC with a North American Industry Classification System (NAICS).[8] NAICS is proposed to reflect changes in the economy, improve the consistency of the SIC's hierarchical structure, and improve the comparability of statistics among nations. BTS supports these goals as long as data availability and analytical integrity are not compromised. BTS is particularly concerned with the cost and philosophical basis of proposed classification system.

Cost

Any change to an economic classification system incurs costs to the programs that use that system. Forms and sample frames must be redesigned to collect data by the new classification of establishments, and statistical bridges must be built between new and old ways of tabulating the data. Some time-series data will be disrupted beyond repair. These costs must be balanced against improvements to data quality and utility before a change is accepted.

Work to date by subcommittees of the Economic Classification Policy Committee indicates that significant and numerous changes to the SIC are required to achieve comparability with the less detailed industrial classification systems in Canada and Mexico. U.S. detail would be maintained primarily by establishing a supplemental fifth digit to the proposed 4-digit NAICS codes.

The magnitude of potential changes could be costly to implement, and result in considerable loss of detail in economic data. If adopted under an international agreement, conversion to NAICS would be mandatory at a time when government budgets are declining. U.S. statistical agencies would be sorely tempted to cover conversion costs by collecting less detailed data under the reduced number of industry categories in NAICS. The supplemental fifth digit could easily become a footnote rather than a framework for data collection and tabulation.

BTS strongly recommends that the potential loss of economic data and other consequences be considered in a formal benefit-cost analysis before the U.S. agrees to adopt NAICS.

Philosophical basis

Industries can be classified by the goods and services they produce, how they produce those goods and services, or for whom they produce those goods and services. All three approaches—product based, production process based, and market based—are used with other factors in the current SIC. The Economic Classification Policy Committee proposes to use production process as the sole philosophical basis for classifying industries.

BTS believes that the production process is a very appropriate basis for classifying establishments in manufacturing, but not in other sectors of the economy. The service offered and the market served are generally more effective distinguishing characteristics of establishments outside of manufacturing. Indeed, the basic distinction between wholesale and retail trade is based on markets: whether establishments sell to businesses or households. Markets are especially important to transportation, particularly in the distinction between local and long distance carriers.

BTS recommends the use of production process for classifying establishments in manufacturing, and demand-based markets for classifying nonmanufacturing establishments. Ideally, the proposed classification can be justified by both philosophical bases. In the end, usefulness of data to a broad spectrum of analysts and decisionmakers should be more important than rigorous adherence to a single classification principle.

Commodity classification

BTS recognizes that the classification of products—including commodities and tradable services—is a valuable supplement to the classification of both manufacturing and nonmanufacturing establishments. BTS is particularly interested in a commodity classification system that:

- classifies commodities in a hierarchical structure that is relevant to transportation;
- represents commodities carried by all modes of transportation;
- is relatively easy to use by respondents to the Commodity Flow Survey;
- is compatible with the Harmonized System (HS) now used world wide; and
- can be linked to the Standard Transportation Commodity Classification (STCC) codes.

In response to problems with the use of STCC codes for the 1993 CFS, BTS has initiated research at the Volpe National Transportation Systems Center to devise a more effective classification for the 1997 survey. Should the resulting classification system prove its worth in the 1997 CFS, BTS will propose the system's adoption as a statistical standard.